

The Honorable Commissioner of Patents
and Trademarks

Page 2

Amendments to the Claims

1. (Currently amended) A modular backplane for an industrial computer comprising:

a first modular backplane segment having a first front side and a first back side, the first front side including a plurality of slots, the first back side including a first dedicated connector located in an area having no slots on the first back side and no slots in the opposite area on the first front side;

a second modular backplane segment having a second front side and a second back side, the second front side including a plurality of slots, the second back side including a second dedicated connector located in an area having no slots on the second back side and no slots in the opposite area on the second front side; and

a bridge module having two connectors, one of which is engaged with the first dedicated connector and the other is engaged with the second dedicated connector, thereby communicatively connecting the first and second modular backplane segments[.].]

~~wherein the first and second dedicated connectors are provided in an area where no slot is formed.~~

2. (Original) A modular backplane for an industrial computer according to claim 1, wherein the bridge module further comprises a circuit board and a bridging integrated circuit.

3. (Original) A modular backplane for an industrial computer according to claim 1, wherein the height of the bridge module is less than that of the slot.

4. (Original) A modular backplane for an industrial computer according to claim 3, wherein the height of the bridge module is less than 16mm.

5. (Original) A modular backplane for an industrial computer according to claim 1, wherein the width of the bridge module is less than 12HP.

6. (Original) A modular backplane for an industrial computer according to claim 1, wherein the length of the bridge module is less than 94mm.

The Honorable Commissioner of Patents
and Trademarks

Page 3

7. (Canceled)

8. (Previously amended) A modular backplane for an industrial computer according to claim 1, wherein the first dedicated connector is disposed in an area between a right-most pair of slots in the front side of the first modular backplane segment, and the second dedicated connector is disposed in an area between a left-most pair of slots in the front side of the second modular backplane segment, and vice versa.

9. (Original) A modular backplane for an industrial computer according to claim 1, wherein the first back side and the second back side each further include a plurality of slots.

10. (Original) A modular backplane for an industrial computer according to claim 9, wherein the slots include J3, J4 and J5 connectors.

11. (Original) A modular backplane for an industrial computer according to claim 9, wherein the slots may provide for the insertion of add-in cards.

12. (Original) A modular backplane for an industrial computer according to claim 1, wherein the slots include J1, J2, J3, J4 and J5 connectors.

13. (Previously amended) A modular backplane for an industrial computer according to claim 1, wherein the slots in the first front side provide for the insertion of a system slot board and a plurality of peripheral boards and all of the slots in the second front side for the insertion of a plurality of peripheral boards, and vice versa.

14. (Original) A modular backplane for an industrial computer according to claim 1, wherein the first front side and the second front side each include seven slots.

15. (Currently amended) A modular backplane for an industrial computer comprising:
a plurality of modular backplane segments, each modular backplane segment including a front first side and a back side, the front side including a plurality of slots, the back side including a primary dedicated connector and a secondary dedicated

The Honorable Commissioner of Patents
and Trademarks

Page 4

back side including a primary dedicated connector and a secondary dedicated connector, the primary and secondary dedicated connectors being located in an area having no slots on the back side and no slots in the opposite area on the front side; and

a plurality of bridge modules for connecting the modular backplane segments, each bridge module having a pair of connectors, one of which is engaged with the primary dedicated connector in one of the modular backplane segments while the other connector is engaged with the secondary dedicated connector in its neighboring segments, and vice versa, such that all the modular backplane segments are communicatively connected[.]

~~wherein the primary and secondary dedicated connectors are provided in an area where no slot is formed.~~

16. (Original) A modular backplane for an industrial computer according to claim 15, wherein the bridge module further comprises a circuit board and a bridging integrated circuit.

17. (Original) A modular backplane for an industrial computer according to claim 15, wherein the height of the bridge module is less than that of the slot.

18. (Original) A modular backplane for an industrial computer according to claim 17, wherein the height of the bridge module is less than 16mm.

19. (Original) A modular backplane for an industrial computer according to claim 15, wherein the width of the bridge module is less than 12HP.

20. (Original) A modular backplane for an industrial computer according to claim 15, wherein the length of the bridge module is less than 94mm.

21. (Canceled)

22. (Previously amended) A modular backplane for an industrial computer according to claim 15, wherein the primary and secondary dedicated connectors are provided in

The Honorable Commissioner of Patents
and Trademarks

Page 5

23. (Original) A modular backplane for an industrial computer according to claim 15, wherein the back side further include a plurality of slots.

24. (Original) A modular backplane for an industrial computer according to claim 23, wherein the slots include J3, J4 and J5 connectors.

25. (Original) A modular backplane for an industrial computer according to claim 23, wherein the slots may provide for the insertion of add-in cards.

26. (Original) A modular backplane for an industrial computer according to claim 15, wherein the slots include J1, J2, J3, J4 and J5 connectors.

27. (Previously amended) A modular backplane for an industrial computer according to claim 15, wherein the slots in the front side of one of the backplane segments provide for the insertion of a system slot board and a plurality of peripheral boards and all of the slots in the front side of the remaining backplane segments for the insertion of a plurality of peripheral boards.

28. (Original) A modular backplane for an industrial computer according to claim 15, wherein the front side includes seven slots.

29. (Currently amended) A monolithic backplane for an industrial computer comprising:
a first backplane segment having a first front side and a first back side, the first front side including a plurality of slots, the first back side including a first dedicated connector located in an area having no slots on the first back side and no slots in the opposite area on the first front side;

a second backplane segment having a second front side and a second back side, the second front side including a plurality of slots, the second back side including a second dedicated connector located in an area having no slots on the second back side and no slots in the opposite area on the second front side;

The Honorable Commissioner of Patents
and Trademarks

Page 6

a bridge module having two connectors, one of which is engaged with the first dedicated connector and the other is engaged with the second dedicated connector, thereby communicatively connecting the first and second backplane segments,

~~wherein the first and second dedicated connectors are provided in an area where no slot is formed.~~

30. (Previously added) A modular backplane for an industrial computer according to claim 1, wherein the back side has a first area where a plurality of slots are provided, and a second area where no slot is provided, the first and second dedicated connectors are provided in the second area.

31. (Previously added) A modular backplane for an industrial computer according to claim 30, wherein the front side has a third area where the slots are provided, and a fourth area where no slots are provided, the first and second dedicated connectors are provided in the second area which corresponds to the fourth area.